

REMARKS

Upon entry of the present amendment, claims 1-18 will remain pending in the above-identified application and stand ready for further action on the merits.

The amendments made herein to the claims do not incorporate new matter into the application as originally filed. For example, claims 1 and 9 have been amended based upon disclosure in Table 1 of the application at page 54, wherein for the "detergent additive particles 2", the amount of surfactant (LAS-Na) is 5% by weight, and based on page 24, lines 14-21 as to a molar ratio of water-soluble substances.

Likewise, it is noted that support for newly added claims 16-18 also occurs in the application. For example, claims 16-17 find support at page 27, lines 9-12 and 23, while claim 18 finds support at page 41, lines 3-4 of the specification.

Based upon the above considerations, entry of the present amendment is respectfully requested.

Claim Rejections Under 35 USC § 112

Claims 1-15 have been rejected under 35 USC § 112, second paragraph based on an allegation of indefiniteness. Reconsideration and withdrawal of the rejection is requested, since

claims 1 and 9 as originally presented particularly and distinctly set forth the invention, which Applicants regard as their own.

Nonetheless, in order to expedite prosecution in the matter of the present case, parenthesis in each of claims 1 and 9 have been removed without narrowing the scope of the claims.

Claim Rejections Under 35 USC § 102/103

Claims 1-15 have been rejected under 35 USC § 102(b) as anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Clayton et al. (EP 0 342 043). Further, claims 1-15 have also been rejected under 35 USC § 102(e) as anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Appel et al. (US 6,069,124). Reconsideration and withdrawal of each of these rejections is requested based upon the following considerations.

The Present Invention and Its Advantages

The present invention provides a granular detergent composition having excellent distributivity upon pouring water into a dispenser such as a drum-type washing machine and a fully automatic washing machine, composite detergent particles contained in the granular detergent composition, and detergent additive particles contained in the composite detergent particles.

The detergent additive particles of the present invention have an effect of enhancing the distributivity of the granular detergent composition in running water prepared by mixing the detergent additive particles with the detergent particle. In the case where the granular detergent composition is supplied by using a dispenser attached to a washing machine such as a drum-type washing machine, in addition to its excellent distributivity in the washing machine, troubles associated with the granular detergent composition forming an aggregate in the dispenser are lessened.

Distinctions Over the Cited Art

Clayton et al.

Clayton teaches a technical concept entirely different from that of the present invention. In support of this contention the following description of the invention is provided in order to help alleviate any misunderstanding of the instant invention that may be held by the Examiner.

(1) The present invention is directed to composite detergent particles prepared by dry-blending of detergent additive particles (a) and detergent particles (b). The detergent additive particles (a) and the detergent particles (b) have the following features.

Detergent Additive Particles (a):

The particles have fast dissolubility as defined in claim 1. Not more than 5% by weight of surfactant can be optionally contained therein. Accordingly, no surfactant or only a small amount of surfactant is contained therein.

Detergent Particles (b):

10-50% by weight of surfactant is contained therein. The particles do not have fast dissolubility like the detergent additive particles (a).

In the present invention, excellent dispenser distributivity of the composite detergent particles obtained by dry-blending the detergent additive particles (a) and the detergent particles (b) can be exhibited. (Please see page 6, line 15 to page 7, line 5 of the instant specification.)

(2) The invention of Clayton is directed to a solid detergent composition composed of at least two components as follows.

(a) The first component (see page 3, lines 40-45):

This component has T_{95} value of from 40 to 180 seconds showing a low dissolubility. 0.75 -30% by weight of anionic surfactant is contained therein.

(b) The second component (see page 5, lines 39-42):

This component has T_{95} value ≤ 40 seconds showing a fast dissolubility. 0.75 -30% by weight of anionic surfactant is contained therein.

Clayton discloses a solid detergent composition comprising two components, each having a different dissolubility. Clayton fails to teach the concept of the present invention such that particles having a fast dissolubility (i.e., Detergent additive particles (a)) contain no surfactant or only a small amount of surfactant. In Example 1 of Clayton, 2.55 parts by weight (= 5.34% by weight) of TAS is contained in the first component (low dissolubility), and 5.60 parts by weight (= 27.8% by weight) of LAS is contained in the second component (fast dissolubility).

Accordingly, the Examples of Clayton show a concept that is the opposite to that of the present invention. Example 2 of Clayton shows similar results to its Example 1 (see page 21, line 16 to page 22, line 3).

Thus, although it is important for the present invention that detergent additive particles (a) contain no surfactant or only a small amount of surfactant, Clayton fails to teach any such of a compositional feature.

Appel et al.

Appel fails to teach or suggest the technical features of the co-presence of two or more kinds of water-soluble substances as is recited in instant claims 1 and 9, so that the present invention is not obvious over Appel.

According to the examples of Appel, in Example 1, for example, 66.0% (0.55 mol) of sodium sesquicarbonate $2H_2O$ (molecular weight: 120), 13.1% (0.045 mol) of sodium citrate $2H_2O$ (molecular weight: 294), and 15.0% (0.00024 mol) of copolymer CP5 (molecular weight: 70,000) are contained as water-soluble substances. Accordingly, 0.55 mol of sodium sesquicarbonate $2H_2O$ is more than ten times as large as the total mol amount of the other water-soluble substances, i.e., 0.04524 mol. Similar results can also be seen in Example 2 of Appel.

Accordingly, based upon the above considerations, it is clear that neither the cited reference of Clayton nor Appel is capable of either anticipating or rendering obvious Applicants' invention as claimed. This is because the references do not teach each of the limitations recited in the pending claims, and provide no motivation to those of ordinary skill in the art that would allow them to arrive at the instant invention.

37 CFR § 1.132 Declaration Evidence

In order to show that advantageous and unexpected results are associated with the instant invention as claimed, one of the present inventors, Mr. Shuji Takana, has carried out comparative testing, which is set forth in the enclosed 37 CFR 1.132 Declaration. The Examiner is respectfully requested to review Mr. Takana's declaration at this time, inasmuch as the comparative testing results set forth therein are material to a consideration of the patentability of the instant invention over the cited art of record.

More particularly, comparative testing has been carried out and is reported in the declaration showing that the co-presence of two or more kinds of the water-soluble substances exhibits unexpectedly superior effects when used in a molar ratio of 9/1 or less. For example, as shown in Tables C and D of the declaration, in each of the detergent compositions in which detergent additive particles 1 to 5 were used, excellent distributivity was obtained as compared with those of comparative examples in which comparative detergent additive particles α , β and γ were utilized.

Specifically, it is evident from Table C of the declaration, that not only in a case of comparative detergent additive particle α or β , where either sodium carbonate or sodium sulfate is used, but also in a case of comparative detergent additive particles γ ,

where both sodium carbonate and sodium sulfate are used in a molar ratio outside the range of 9/1 or less, the effects are drastically worsened as compared to the effects of the present invention (which is shown in Table D). Incidentally, it is noted that the molar ratio of sodium carbonate to sodium sulfate is about 12/1 in comparative detergent additive particles γ , which ratio corresponds to Example 1 of Appel (US 6,069,124) where a molar ratio of sodium sesquicarbonate to other water-soluble substances is about 12/1.

Accordingly, based on a full consideration of the accompanying 37 CFR 1.132 declaration of Mr. Takana, it will be clear that the advantageous and unexpected effects of the present invention are not obtained by Appel or rendered obvious thereby in any way.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that each of the pending claims 1-18 is allowable at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Appl. No. 09/868,141

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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